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conced

set of buttons to perform a first set of functions, when later actuated by the first user; and

ii) allowing a second user to program a second set of buttons to perform a second set of functions, different from the first set, when later actuated by the second user.

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#### REMARKS

This Amendment is submitted in response to the Office Action mailed on March 14, 2003. Claims 1 - 10 and 21 - 40 are pending, and all stand rejected at present.

Claim 23 has been cancelled because of a problem with legibility. Claim 41 replaces claim 23, and is identical with previous claim 23.

This replacement of claim 23 is made, rather than amendment of claim 23, because the undersigned attorney is unable to locate the illegible region of claim 23, and thus cannot specify which parts of claim 23 would be amended, as required by the rules. (These rules require that an annotated copy of an amended claim be submitted, which show the changes.) Since he cannot show those changes, he submits claim 41 in place of claim 23.

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## Response to 103 - Rejections

### Summary of Response

All claims state that all buttons are of different shapes. Even if the references are combined, that is not attained. Wheeler only shows three shapes, and shows multiple buttons of **the same shape**.

\* \* \*

The combination of Wheeler with Tarbox must be done in a logical manner. Wheeler (Figure 12) shows a special numeric keypad. If a combination is made, that keypad should be substituted for the numeric keypad of Tarbox.

But if that is done, the invention is not obtained. Those numeric keypads do not initiate "transactions." Tarbox's buttons 105 in his Figure 1 do so.

\* \* \*

Merely substituting shaped buttons for Tarbox's buttons 105 does not produce the claimed invention. One reason is that a **functional, operating** device must be obtained. The MPEP requires a "likelihood of success" be shown.

Tarbox shows a system which is adapted to interacting with persons of normal visual ability. Tarbox, at different times, displays different menus to the customer. Blind people cannot know what menu is being displayed at any given time.

Tarbox also issues visual instructions to the customers.

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Blind people cannot read them.

The particular customized menus which Tarbox displays depend on which particular card the customer presents to Tarbox's ATM. No teaching has been given which explains how a blind person selects the proper card.

Thus, no likelihood of success has been presented.

\* \* \*

It could be argued that Tarbox's operation should be modified so that a new class of customer is, in effect, generated, namely, blind customers.

- Those customers only receive a single screen of options.
- Different shapes of buttons are provided.
- The customer memorizes which shape of button corresponds to each option.
- No visual instructions are given to these customers.

However, no teachings whatever have been given in favor of these modifications of Tarbox.

\* \* \*

The Office Action presumes, without justification, that Wheeler's numeric keypad, having keys of special shape, are somehow more easily used by a blind person. The undersigned attorney performed an experiment, described below, which contradicts this.

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The undersigned attorney had no trouble dialing a telephone number, using a numeric keypad, with his eyes closed.

Thus, no evidence has been given that the addition of Wheeler's keypad to Tarbox actually makes any difference, or acts as an improvement.

End Summary

Claims 1 - 10, 21, 22, and 24 - 40 were rejected as obvious, based on Tarbox and Wheeler.

Claim 1

Claim 1 recites:

1. A self-service terminal comprising:  
  
a user interface including a group of indicators, all of different shapes and each indicator being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting a single indicator.

Applicant respectfully submits that

- 1) it makes no sense to combine the references in the manner done,
- 2) it is impossible to combine the references in the manner done, or
- 3) even if the references are combined, the

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invention is not attained,  
or all of (1), (2), and (3). These assertions will be explained.

#### TARBOX REFERENCE

Tarbox allows a user of an ATM to establish pre-programmed transactions. For example, his Figure 5 shows pre-programmed options which a certain user may have established. The information which informs the ATM of the user's particular pre-programmed options is stored in the user's passcard. (Column 5, lines 11 - 45.)

Figure 2 shows "conventional" options, which are presumably presented to all customers. (Column 4, line 37 et seq.)

However, Figures 2 and 5 of Tarbox show **the computer display screen** of Tarbox's ATM. That is, the elements such as 507 in Tarbox's Figure 5 and 201 in Figure 2 are actually **visual images** on the computer display. (Column 3, lines 48 - 49 and 52 - 54; column 4, lines 37 - 47; column 6, line 11 et seq.) Applicant will term these visual images "option labels."

The option labels cannot be felt by the human hand, and have no tactile content. Thus, the option labels do not assist a visually impaired person.

The user in Tarbox selects an option by pressing a button 105 in his Figure 1, which button is located adjacent to the option label. (Column 4, lines 18, 19.) However, Tarbox does not appear

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to state that the buttons 105 have any tactile characteristics. They would appear to be flat "membrane-type" switches.

#### WHEELER REFERENCE

Wheeler shows buttons on a keypad. Some of the buttons are of different shapes, compared with others. Wheeler's Figure 12 shows three shapes in Figure 12 (circle, square, and diamond), but shows 14 buttons. Plainly, some shapes must be repeated (such as in buttons 4 and 6, which are both squares).

Wheeler makes an incorrect statement. He states that "adjacent" keys are of different shapes. However, that is not actually so. In his Figure 12, the "3" button would appear to be "adjacent" the "5" button. However, both buttons are circular, contrary to his statement.

Further, in all Wheeler's embodiments, he states that acoustic feedback should be provided. That is, a speech-synthesis system speaks the telephone number which the user punches in. If the number is correct, Wheeler's user punches the "SEND" button 12 in his Figure 1.

#### Analysis of References

Applicant submits that the references, if combined at all, must be combined in a logical manner. Wheeler shows a numeric keypad. Tarbox also shows such a keypad, labeled 107 in his Figure

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1. If the references are to be combined (and Applicant **does not** admit that a teaching for combining them has been given) then Wheeler's keypad should replace Tarbox's keypad 107.

However, that does not produce the claimed invention. Claim 1 states:

. . . each indicator being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting a single indicator.

No pre-defined transactions are associated with the numeric keypad 107 of Tarbox. Thus, even if Wheeler's keypad is substituted for Tarbox's, pre-defined transactions are still absent.

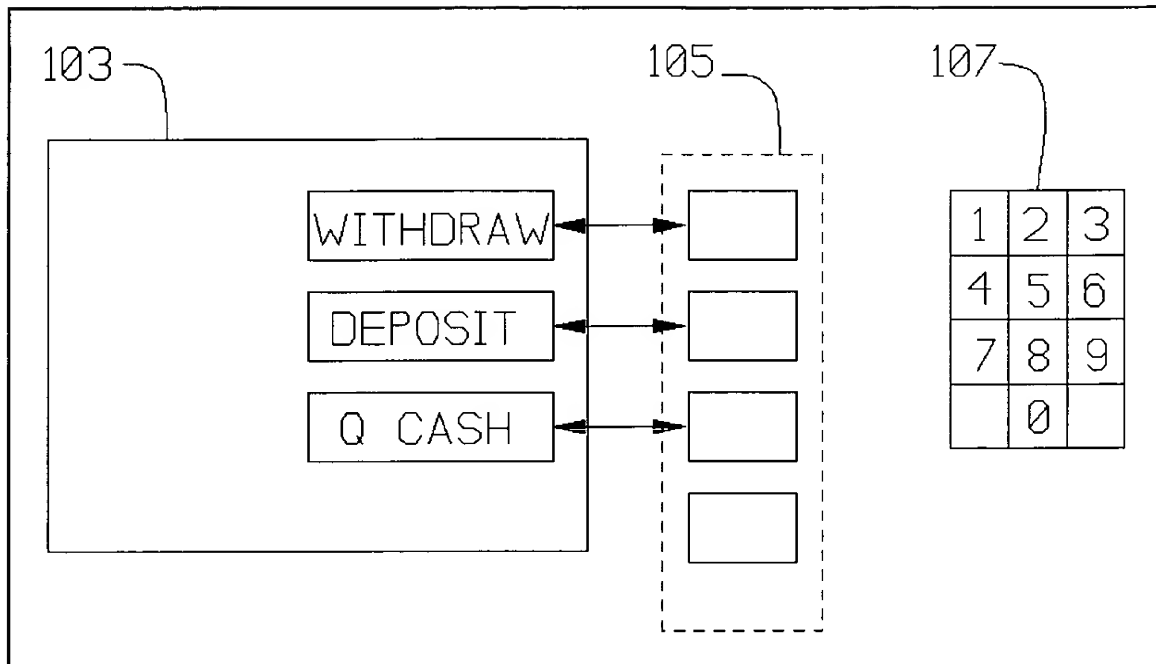
That is, if Tarbox does not pre-program his numeric keypad, there is no reason to believe that he would pre-program Wheeler's, if substituted.

Further, all claims state that all buttons are of different shapes, or of a different combination of size, shape, and color. Wheeler does not show that. In his Figure 12, multiple square buttons are shown, as are multiple circular buttons. Thus, even if the references are combined, the claims in this group are not attained.

#### **No Likelihood of Success Shown**

Sketch 1, below, is a rendition of Tarbox's Figure 1.

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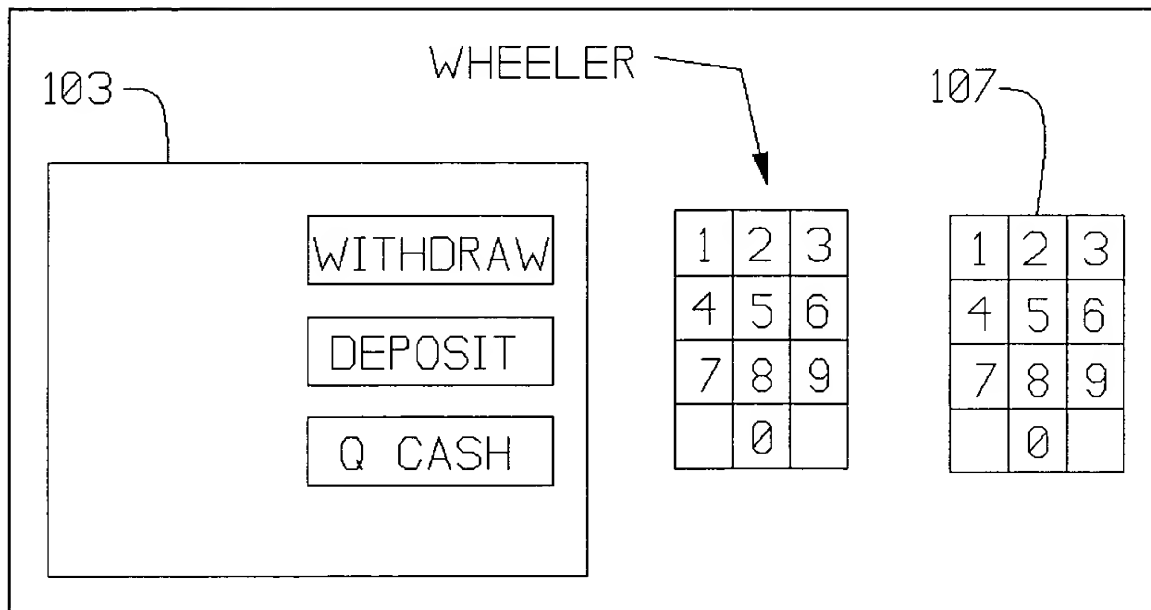
Sketch 1

Display screen 103 carries labels WITHDRAW, DEPOSIT, and Q CASH. Adjacent the display screen 103 are the buttons 105 which the user presses, when pre-programmed labels are presented.

Sketch 2, below, illustrates Wheeler's keypad replacing the buttons 105.



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Sketch 2

Applicant points to several problems which this creates.

One is that this second numeric keypad creates confusion. Which is the "actual" numeric keypad, which a customer utilizes to enter dollar amounts ?

If the PTO asserts that the numbers should be removed from Wheeler's numeric keypad (so that Tarbox's keypad 107 is the one used to enter numbers), then Applicant requests that a teaching be identified for this removal.

A second problem is that Tarbox shows a **single** column of labels (WITHDRAW, DEPOSIT, and Q CASH), while Wheeler's keypad contains **three** columns of buttons. Which column of Wheeler's

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keypad corresponds to the **single** column of labels ? Applicant submits that, whatever the answer, no teaching has been given in support of the answer.

A third problem is that, if it be asserted that Tarbox should show three columns of labels on display 103, to correspond to the three columns of buttons in Wheeler's keypad, then Applicant asks that a teaching for this modification of Tarbox be identified.

These three problems, and others, indicate that a likelihood of success in the combined references has not been shown.

-- The combination of Sketch 2 is confusing.

-- It is not clear which column of buttons in Wheeler's keypad corresponds to the column of labels in Tarbox's display 103.

MPEP § 706.02(j) states:

Contents of a 35 U.S.C. 103 Rejection

To establish a prima facie case of obviousness, three basic criteria must be met.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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**The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.**

This MPEP section states that the expectation of success must be found in the references. In this case, no expectation has been shown at all, as just explained, let alone shown in the references.

In addition, as explained above, the claims state that all buttons are different. This MPEP section requires that recitation be shown in the references. It is not: some of Wheeler's buttons are the same.

#### **No Teaching Given**

Two rationales are given for combining the references.

#### First Rationale

One is that the use of differently shaped buttons is aesthetically pleasing to the user. (Page 4, bottom.) However, several problems exist in this rationale.

One is that this rationale is a naked conclusion, unsupported by evidence. Evidence is required.

A second is that this conclusion appears to be false, as a matter of fact. The first time the undersigned attorney saw Wheeler's Figure 12, he said to himself, "Those buttons are really ugly," or something similar.

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A third problem is that the rationale has not identified which user is being considered. Wheeler discusses sight-impaired users. Blind people cannot see the buttons, so it is impossible for the buttons to be "aesthetically pleasing" to them.

A fourth problem is that the rationale must be shown in the prior art, as the last MPEP section cited above indicates.

A fifth problem is that, if aesthetically pleasing buttons are desired, then Wheeler, by himself, provides such buttons. There is no need to add Tarbox. Thus, the goal of attaining aesthetically pleasing buttons is attained by Wheeler alone.

A sixth problem is that the rationale based on **aesthetics** does not lead to the **functionality** contained in the claims. For example, some claims state that (1) the buttons are of different shapes and (2) selecting a button executes a transaction. If one is concerned with aesthetics, one would simply paste inactive buttons onto the ATM, and not connect them. But that does not lead to the claimed functionality.

A seventh problem is that thousands of alterations in a reference can improve its aesthetics. The PTO has shown no reason why the shapes of the buttons should be selected over all the other possibilities.

An eighth problem is that the rationale based on aesthetics presumes that Tarbox is somehow deficient in aesthetic appearance. That deficiency has not been shown.

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### Second Rationale

The second rationale is that Wheeler's buttons, if added to Tarbox, enable a blind person to execute a transaction on Tarbox's device. However, that is not a teaching for adding such buttons to Tarbox. That merely identifies a **characteristic** of the combined references, but **after** the combination is made. A teaching for making the combination in the first place is required.

And, as explained above, no likelihood of success has been given for the combination.

### Problems with Rationales

COMBINATION DOES NOT FOLLOW IN RE DEMBICZAK

The PTO's rationale does not follow the CAFC's decision of In re Dembiczak, 175 F. 3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).

In brief, Dembiczak states that

- **objective evidence** of a teaching for combining references must be provided;
- the Examiner's speculation does not qualify as objective evidence;
- numerous sources can provide a teaching to combine references;
- knowledge of one skilled in the art can act as a source;

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-- however, THE RANGE OF SOURCES AVAILABLE  
DOES NOT DIMINISH THE REQUIREMENT FOR ACTUAL  
EVIDENCE;

-- broad conclusory statements by the  
Examiner do not qualify as evidence; and

-- "particular factual findings" as to the  
teaching are required.

The PTO has not provided the required "evidence" for combining  
the two references.

COMBINATION MODIFIES REFERENCES, WHICH IS NOT ALLOWED

Wheeler states that the person using his device punches in a  
sequence of telephone numbers. As each number is punched,  
Wheeler's device "speaks" the number. Also, Wheeler's device  
"speaks" the sequence of numbers punched. (Page 7, bottom.) This  
allows the user to correct errors.

Tarbox shows no speech-synthesis system. If Wheeler's buttons  
alone are added to Tarbox, the audible feedback of Wheeler is lost.  
Thus, Wheeler is rendered inoperative.

MPEP § 2143.01, section 5, states:

The proposed modification cannot render the  
prior art unsatisfactory for its intended  
purpose.

From another point of view, if Wheeler's audible feedback is

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added to Tarbox, no teaching has been given for that addition.

PTO's RATIONALE IS INCOMPLETE

Assume arguendo that Wheeler's keypad is added to Tarbox, as in Sketch 2 above. The PTO has not shown how its hypothetical blind person would know which key to press, for example, to execute the WITHDRAW function.

Until the PTO shows this, no likelihood of success has been shown, as required.

APPLICANT SUBMITS THAT BASIC ASSUMPTION IS INCORRECT

Wheeler utilizes audible feedback, and shows round, square, and diamond-shaped keys in his Figure 12. According to Wheeler, both those features (shape and audible feedback) together assist his sight-impaired user.

Wheeler states:

Visually impaired (and other disabled) people have great difficulty in correctly identifying the desired buttons/pads to operate on known keypads.

(Page 1, lines 21 - 23.)

Applicant submits that this statement is factually incorrect.

Insofar as Wheeler is discussing a keypad of the type shown in his Figures 1, 2, and 4, and that of Tarbox's Figure 1 (if the

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keys of the latter are 3-dimensional), his statement is incorrect.

If one closes one's eyes, one can easily dial any desired telephone number, using such a keypad. The undersigned attorney demonstrated this on June 15, 2003, at about noon. He owns a telephone, which has a keypad containing a 3 x 4 array of raised buttons, each about the size of a postage stamp.

He closed his eyes, and dialed his FAX machine, the number of which is 296 - 4477. He did this by remembering that the following keys are located at the corresponding row-column locations:

Key	Row	Column
2	1	2
9	3	3
6	2	3
4	2	1
4	2	1
7	3	1
7	3	1

He located each row-column position by feeling the rows and columns. The FAX machine rang in the usual manner.

Therefore, Applicant submits that Wheeler's statement, cited above, is incorrect. Consequently, any notion that the added shapes of his Figure 12 provide improved operation for blind persons must be held in suspicion.

As just demonstrated, an ordinary keypad can easily be used by a blind person.



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Therefore, Applicant submits that the addition of the shaped keys of Wheeler to Tarbox adds nothing to Tarbox. Thus, there is no reason to add them.

#### Wheeler Teaches Away

Wheeler states that, in his system, the user can "take as long as necessary to select the telephone number to be dialed." (Page 7, lines 27, 28.)

That is contrary to ordinary operation of an ATM, such as in Tarbox. The manufacturer of the ATM does not want users to "take as long as necessary." That is a known fact.

Tarbox recognizes this. In column 2, lines 7 - 9, he mentions the problem of customers' being required to "go through a myriad of menu screens to get to the actual function he or she desired." The actual problem is that the customer consumes time, and stalls the customers behind him.

The QUICK CASH option is consistent with this conclusion.

#### No Expectation of Success II

Tarbox states that the options displayed on his screen (such as those in his Figure 5) are determined by the particular access-card which the customer presents to the ATM. (Column 3, lines 6 - 18; column 7, lines 56 - 61.)

The PTO has not shown how a blind person selects the proper

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card, from the other cards in the person's wallet/purse.

### No Expectation of Success III

Tarbox describes the programming procedure by which a person programs the functions which his/her card makes available. (Column 8, line 4 et seq.)

It is clear that the person programming the card must be able to read the computer screen, in order to navigate through the flow charts.

By analogy, it appears that the programming process is similar to purchasing an item over the Internet, using an ordinary browser. Blind people cannot use such browsers.

The PTO has not shown how a blind person can program the card.

It could be argued that the blind person obtains a pre-programmed card (see Tarbox, column 7, lines 56 - 58). If so, no teaching has been given showing (1) how the options displayed, as in Tarbox's Figure 5, correspond to buttons of specific shape and (2) how the blind user is informed of the position of the buttons.

### No Expectation of Success IV

This point is perhaps a continuation of the previous.

Applicant submits that the rejection is incomplete. Somehow, the blind person must be told which shape of a button corresponds to which function. For example, considering Tarbox's Figure 5,

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the blind person must be told which shape corresponds to "WITHDRAW \$ 75," which shape corresponds to "PAY PHONE BILL," and so on.

The PTO has not explained how the blind person obtains this information. The rationales for rejection are incomplete: they do not explain how a likelihood of success is attained.

#### No Expectation of Success V

An overall reading of Tarbox, especially Column 7, line 51 et seq., indicates that the customer is presented with multiple screens. For example, the customer may choose to make a mortgage payment. After that is completed, Tarbox's ATM returns to the "core program." (Column 9, line 32.) Plainly, that program displays the material shown in Tarbox's Figure 5, so that the customer can select another option.

Applicant submits that it is not practical to expect a blind person to understand which of several screens is being displayed at any given time.

Further, Tarbox states that instructions are displayed to the customer, such as telling the customer to select something. (Column 9, lines 40 - 43.) The PTO has not shown how Tarbox can give these instructions to a blind person.

Applicant submits that these examples further illustrate a lack of expected success.

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### One Conclusion

The PTO's combination of references requires additional items, in order to show the requisite expectation of success. These items would seem to include:

- 1) Some way of explaining to a blind person which screen is being displayed at any given time, so that the person knows what options are displayed.
- 2) Some way of giving instructions to a blind person.
- 3) Some way of accepting dollar amounts from the blind person using Tarbox's keypad.<sup>1</sup>

It could be argued that Tarbox's operation should be modified so that a new class of customer is, in effect, generated, namely, blind customers.

- Those customers only receive a single screen of options.
- Different shapes of buttons are provided.
- The customer memorizes which shape of button corresponds to each option.
- No visual instructions are given to these

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<sup>1</sup> In this connection, Applicant points out that, if Tarbox's existing numeric keypad will suffice for a blind person, then no reason exists to modify his option-keys 105 for the blind person.

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customers.


However, no teachings whatever have been given in favor of these modifications of Tarbox.

### Conclusion

Applicant requests that the rejections to the claims be reconsidered and withdrawn.

Applicant expresses thanks to the Examiner for the careful consideration given to this case.

Respectfully submitted,

  
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